$$s_{net} = \frac{P}{A} + \frac{P \cdot e}{S} - \frac{M_{DL}}{S} \qquad \text{(Eq. 2.7)}$$

where $P =$ total prestressing force
$A =$ cross sectional area of girder
$e =$ eccentricity of the prestressing force
$S =$ section modulus, $\left(\frac{I}{e}\right)$
$M_{DL} =$ moment induced by the dead load of the girder at mid-span

For the Type III girders, the net compressive stress is 1.75 ksi after detensioning. For the Type IV girders, the corresponding stress is 2.87 ksi. Figure 2.15 shows the cylinder with the applied stress and Demec points. The strain gages on the creep rigs were frequently checked to ensure that the load remained constant as time elapsed. It was necessary to periodically tighten the nuts on the rigs to maintain a constant applied stress.

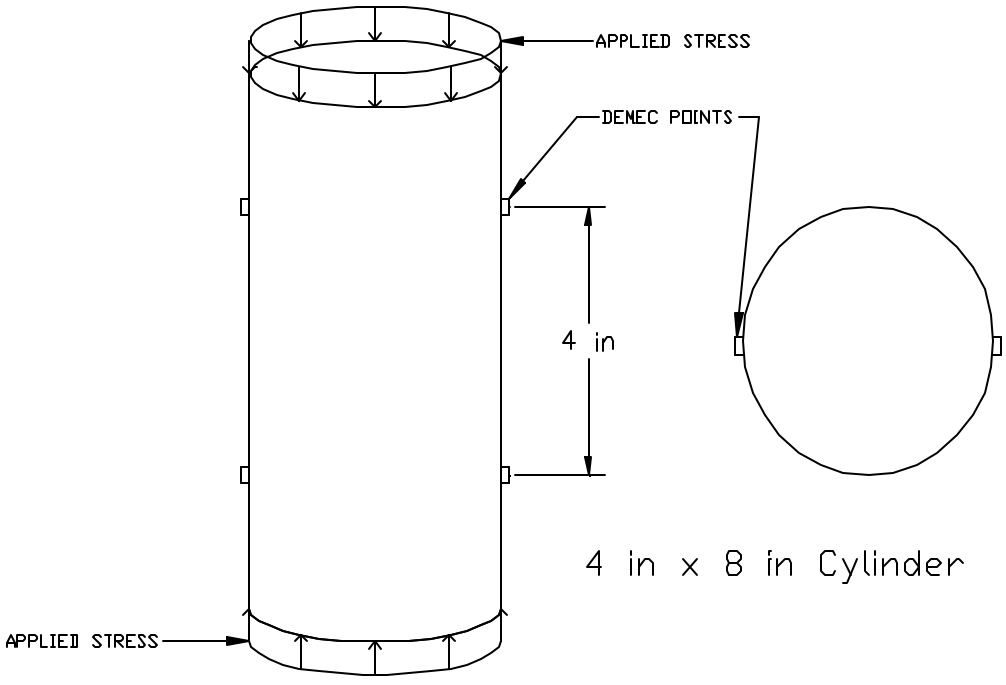

Figure 2.15 Demec Point Locations and Applied Stress on Creep Cylinder